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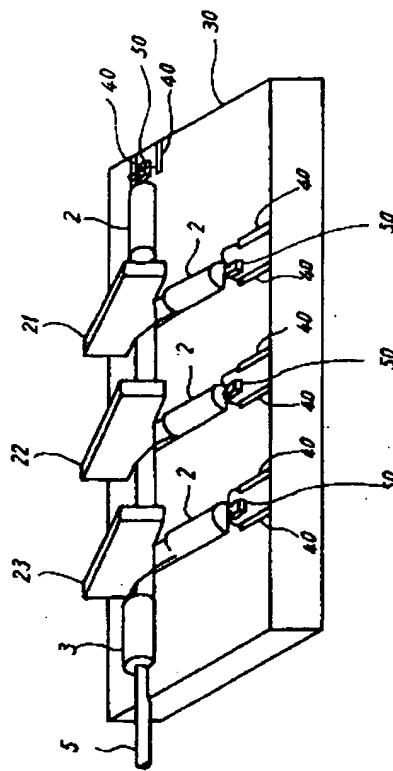
APPLICATION DATE : 16-10-80
 APPLICATION NUMBER : 55144649

APPLICANT : MITSUBISHI ELECTRIC CORP;

INVENTOR : TAKEI TOSHIO;

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TITLE : SEMICONDUCTOR LASER
 SYNTHESIZER



ABSTRACT : PURPOSE: To obtain a small type light circuit by forming a recess or a V shaped groove precisely disposed on one Si substrate and arranging an optical element, a laser chip and an optical fiber.

CONSTITUTION: A recess is formed accurately on the surface of an Si substrate 30, and filters 21-23, lenses 2, 3 and a fiber 5 are provided. A recess is formed at the light passage. A laser chip 50 can be mounted before each lens 2, and is connected to the electrode 40 on a substrate 30. The positioning of a recess can be accurately achieved by photoetching technique, and each part, once secured, can not be moved at all. Since an Si substrate 30 has relatively high thermal conductivity, the dissipation of the laser can be improved and small laser light synthesis can be obtained.

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